CLAIMS

What is claimed is:

1. A method for delivering a heterologous nucleic acid to a dendritic cell, said method comprising:

providing a recombinant adenoviral vector that includes a tropism for dendritic cells and comprises the heterologous nucleic acid; and

exposing the dendritic cell to the recombinant adenoviral vector,

thus delivering said heterologous nucleic acid to the dendritic cell.

2. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector with an at least partially reduced tropism for liver cells.

3. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector including at least a part of an adenoviral capsid protein having a tropism for dendritic cells.

4. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector including adenoviral capsid proteins from at least two different adenovirus serotypes.

5. The method according to claim 4, wherein at least one of the at least two different adenovirus serotypes is selected from adenovirus subgroup B.

6. The method according to claim 5, wherein at least one of the at least two different adenovirus serotypes is selected from adenovirus subgroup C.

7. The method according to claim 4, wherein at least one of the at least two different adenovirus serotypes is selected from the group consisting of adenovirus serotypes 11, 16, 35, 51, and 40L.

8. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a non-native fiber protein substituted for at least a part of a native fiber protein of the first adenovirus, the part of a non-native fiber protein selected from the group consisting of fiber proteins from adenovirus serotypes 11, 16, 35, 51, and 40L.

9. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a fiber protein from adenovirus serotype 35 substituted for at least a part of a native fiber protein of the first adenovirus.

10. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a fiber protein from adenovirus serotype 16 substituted for at least a part of a native fiber protein of the first adenovirus.

11. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a fiber protein from adenovirus serotype 11 substituted for at least a part of a native fiber protein of the first adenovirus.

12. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a fiber protein from adenovirus serotype 51 substituted for at least a part of a native fiber protein of the first adenovirus.

13. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of adenovirus subgroup C with at least a part of a fiber protein from adenovirus serotype 40L substituted for at least a part of a native fiber protein of the first adenovirus.

14. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a non-native fiber protein substituted for at least a part of a native fiber protein of the first adenovirus, the part of a non-native fiber protein selected from the group consisting of fiber proteins from adenovirus serotypes 11, 16, 35, 51, and 40L.

15. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a fiber protein from adenovirus serotype 35 substituted for at least a part of a native fiber protein of the first adenovirus.

16. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a fiber protein from adenovirus serotype 16 substituted for at least a part of a native fiber protein of the first adenovirus.

17. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a fiber protein from adenovirus serotype 11 substituted for at least a part of a native fiber protein of the first adenovirus.

18. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a fiber protein from adenovirus serotype 51 substituted for at least a part of a native fiber protein of the first adenovirus.

19. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector based on a first adenovirus of serotype 5 with at least a part of a fiber protein from adenovirus serotype 40L substituted for at least a part of a native fiber protein of the first adenovirus.

20. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector modified such that replication of the recombinant adenoviral vector's genome in a target cell is at least partly reduced in comparison to a wild-type adenovirus.

21. The method according to claim 1, wherein providing the recombinant adenoviral vector comprises providing a recombinant adenoviral vector modified such that an immune response to the recombinant adenoviral vector in a host is at least partly reduced in comparison to a wild-type adenovirus.